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# $\alpha 1a$ Tubulin (h7): 293 Lysate: sc-158206

## BACKGROUND

Tubulin is a major cytoskeleton component that has five distinct forms, designated  $\alpha$ ,  $\beta$ ,  $\gamma$ ,  $\delta$  and  $\epsilon$  Tubulin.  $\alpha$  and  $\beta$  Tubulins form heterodimers which multimerize to form a microtubule filament. There are five  $\beta$  Tubulin isoforms ( $\beta 1$ ,  $\beta 2$ ,  $\beta 3$ ,  $\beta 4A$  and  $\beta 4B$ ) that are expressed in mammalian tissues.  $\beta 1$  and  $\beta 4$  are present throughout the cytosol,  $\beta 2$  is present in the nuclei and nucleoplasm, and  $\beta 3$  is a neuron-specific cytoskeletal protein.  $\gamma$  Tubulin forms the gamma-some, which is required for nucleating microtubule filaments at the centrosome. Both  $\delta$  Tubulin and  $\epsilon$  Tubulin are associated with the centrosome.  $\delta$  Tubulin is a homolog of the *Chlamydomonas*  $\delta$  Tubulin Uni3 and is found in association with the centrioles, whereas  $\epsilon$  Tubulin localizes to the pericentriolar material.  $\epsilon$  Tubulin exhibits a cell cycle-specific pattern of localization; first associating with only the older of the centrosomes in a newly duplicated pair, and later associating with both centrosomes.

## REFERENCES

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- Chang, P. and Stearns, T. 2000.  $\delta$  Tubulin and  $\epsilon$  Tubulin: two new human centrosomal tubulins reveal new aspects of centrosome structure and function. *Nat. Cell Biol.* 2: 30-35.

## CHROMOSOMAL LOCATION

Genetic locus: TUBA1A (human) mapping to 12q13.12.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## PRODUCT

$\alpha 1a$  Tubulin (h7): 293 Lysate represents a lysate of human  $\alpha 1a$  Tubulin transfected 293 cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

$\alpha 1a$  Tubulin (h7): 293 Lysate is suitable as a Western Blotting positive control for human reactive  $\alpha 1a$  Tubulin antibodies. Recommended use: 10-20  $\mu$ l per lane.

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

$\alpha 1a$  Tubulin (6A204): sc-69969 is recommended as a positive control antibody for Western Blot analysis of enhanced human  $\alpha$  Tubulin expression in  $\alpha 1a$  Tubulin transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



$\alpha$  Tubulin (6A204): sc-69969. Western blot analysis of  $\alpha 1a$  Tubulin expression in non-transfected: sc-110760 (A) and human  $\alpha 1a$  Tubulin transfected: sc-158206 (B) 293 whole cell lysates.

$\alpha$  Tubulin (YOL1/34): sc-53030. Western blot analysis of  $\alpha 1a$  Tubulin expression in non-transfected: sc-110760 (A) and human  $\alpha 1a$  Tubulin transfected: sc-158206 (B) 293 whole cell lysates.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

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